

Title (en)

SYSTEM AND METHOD FOR REDUCING TORSIONAL MOVEMENT IN A WIND TURBINE TOWER

Title (de)

SYSTEM UND VERFAHREN ZUR REDUZIERUNG DER DREHBEWEGUNG IN EINEM WINDTURBINENTURM

Title (fr)

SYSTÈME ET PROCÉDÉ POUR RÉDUIRE UN MOUVEMENT DE TORSION DANS UNE TOUR DE TURBINE ÉOLIENNE

Publication

EP 3101273 B1 20210728 (EN)

Application

EP 16172476 A 20160601

Priority

US 201514729328 A 20150603

Abstract (en)

[origin: EP3101273A1] The present disclosure is directed to a system 100 and method 200 for reducing vibrations of a tower 12 (e.g. a tubular steep tower or a lattice tower structure) of a wind turbine 10. The method includes continuously determining a torsional movement of the tower 12 based at least in part on measurements obtained from one or more sensors. Another step includes continuously determining, via a controller 25, a control command for one or more pitch drive mechanisms 38 of the wind turbine 10 based on the torsional movement. Thus, the method also includes operating the one or more pitch drive mechanisms 38 based on the control command so as to dampen the torsional movement of the tower 12.

IPC 8 full level

F03D 7/02 (2006.01)

CPC (source: BR CN EP US)

F03D 7/0224 (2013.01 - BR CN EP US); **F03D 7/0296** (2013.01 - BR CN EP US); **F03D 7/043** (2013.01 - CN); **F03D 7/044** (2013.01 - BR CN US); **F03D 13/20** (2016.05 - EP US); **F03D 17/00** (2016.05 - EP US); **F05B 2240/9121** (2013.01 - BR EP US); **F05B 2260/964** (2013.01 - CN); **F05B 2270/334** (2013.01 - BR EP US); **Y02E 10/72** (2013.01 - EP US); **Y02E 10/728** (2013.01 - EP US)

Cited by

WO2019042515A1; US11994108B2; WO2020007431A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

EP 3101273 A1 20161207; **EP 3101273 B1 20210728**; BR 102016012414 A2 20170124; BR 102016012414 B1 20230214; CA 2930484 A1 20161203; CA 2930484 C 20231010; CN 106246468 A 20161221; CN 106246468 B 20210423; DK 3101273 T3 20211101; ES 2895630 T3 20220222; US 2016356266 A1 20161208

DOCDB simple family (application)

EP 16172476 A 20160601; BR 102016012414 A 20160531; CA 2930484 A 20160519; CN 201610385635 A 20160603; DK 16172476 T 20160601; ES 16172476 T 20160601; US 201514729328 A 20150603